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ORIGINAL ARTICLES.

CASES OF EMBOLISM OF THE POSTERIOR AORTA, ITS COLLATERAL AND TERMINAL BRANCHES.

BY A. LIAUTARD, M.D., V.S.

Read before the New York Pathological Society.

An investigation of the literature of the diseases of arteries and specially of embolism, will give very little satisfaction, if made through English veterinary works. English periodicals, specially the *Veterinary Journal*, present their readers only with a few observations, and most of those are taken from continental papers. Williams, in his excellent work on Practice, gives to the subject, in the article on arteritis and embolism, only a short notice. French and German authors have, on the contrary, given a good deal of attention to this important lesion, and thanks to the long series of observations made and reported by Prof. A. Goubaux, of Alfort, and Prof. Bollinger, of Munich, veterinarians have become quite familiar with these diseases.

That all arteries may become the seat of disease and may be found plugged up by clots, no one will deny, and that according to the location of the diseased process a different series of symptoms will be observed. Bollinger has shown us how it may often be the cause of fatal attacks of colic. Bouley and Goubaux have taught us how it may be accompanied by entire paraplegia or by peculiar forms of lameness of one or both of the hind extremities.

It is with the desire of increasing the number of recorded observations in our English literature that we present our readers the two following cases :

Thanks to the kindness of Mr. Lockhart, M.R.C.V.S., and Prof. Robertson, M.D., V.S., of New York, we had the opportunity to observe them and to make post-mortem examinations, and in both the symptomatology and lesions, we hope, will be found as they were to us, most interesting and instructive. In the first one we made no positive diagnosis, as the animal died before we could proceed to our examination. In the second, on the contrary, we had the satisfaction not only to confirm it, but also that of the students of the American Veterinary College, before whom we had the pleasure of developing the symptoms almost to our will. But what will prove most interesting to the old practitioners, and what will probably be difficult to understand, is the excessive and sudden development of the symptoms, their rapid and fatal termination, while at the same time, by the condition of the lesions, there will not remain the slightest doubt, for one horse at least, that the diseased process must have existed for several months before anything amiss could be detected.

The first case is that of a handsome bay horse, about seven years old, who, up to some months ago, had never been sick. At that time he became lame forward, and after treatment was sent out to the country. Being needed for work, he was brought back to the city. On arriving at the owner's stable he was found in perfect condition and perfectly able to resume his work, with the exception of a little swelling on his sheath which was œdematos, slightly warm and not painful. He then received a dose of cathartic, and with some hygienic care in cleansing and diet he was

soon able to resume his work, which he performed to all satisfaction for fourteen days. After that length of time the swelling of the sheath is found one morning to have returned. Diuretics are given, and he is put again in harness two or three days after, in apparent good health. After working for two days he is ridden by the coachman on a Saturday to Mr. Lockhart's office. This gentleman finds him very stiff behind, and apparently in great suffering, for his body is covered with profuse perspiration; his countenance is that of great pain, and he is walked back to his stable, a distance of a little over a mile. Visited in the evening, he is comfortably in his stall, eating, and presenting nothing abnormal.

The following day, Sunday, Mr. L. is called in a hurry to the stable; he finds the animal in great pain, with the left hind leg enormously swollen, sweating abundantly and suffering with diarrhoea without having shown any abdominal pains. The next morning the leg has resumed almost its normal size; all pains have subsided, the animal eats well, lies down and gets up without difficulty, though he remains but a short time in the recumbent position; during the night he has passed by rectum a great quantity of blood (two or three quarts, says the coachman, who is an intelligent hostler.)

Dr. Robertson was then called in consultation. A doubtful diagnosis was made of some lesions of the internal blood-vessels, probably of the iliac arteries, and a fatal prognosis was given to this peculiar series of symptoms.

From this day to the end of the week the horse remains pretty well in the same condition, at times worse than at others; still he remains restless, lies down and gets up oftener, and remains lying down for a shorter time than before; he now begins to require a little assistance to rise from his bed.

Having decided to have him destroyed, on my urgent request, to exhibit him to the class, and make a diagnosis, which we had expressed the opinion, was probably that of embolism of the posterior aorta or its branches, and to have the opportunity to make a more minute post mortem, the horse was brought to the hospital of the College on Saturday evening and placed in slings to

prevent him from injury, in case he should not be able to get up, examination being postponed to the following day. He was found the next morning lying down, with the slings broken and in fact in a dying condition. Death takes place about 12 o'clock, and the post mortem was proceeded with immediately, having thus lost the opportunity of an examination rendered impossible and dangerous by the dying struggles of the patient.

The subcutaneous tissue of the left leg is considerably congested, the lymphatic vessels and glands swollen, and the superficial veins dilated and gorged with thick and syrupous blood. The abdomen being emptied to render the examination of the main arteries easier, an aneurism of the great mesenteric is exposed. It is a large round mass, of the size of a good sized apple and entirely filled with an organized clot, composed of different layers which seem to close up the cavity completely. This clot extends backwards into the posterior aorta, and thus obliteration is found in the left circumflex iliac, the external and the internal iliac of both sides, with however, some differences in the extension of the diseased process. It is thus that on the left side, the external iliac is plugged way down, the clot being traced not only in the collateral branches but down to its termination into the tibial arteries and even below these as far as the hock. The internal iliac on the same side is also obliterated, back into its termination the obturator and iliaco-femoral ; beyond those points the arteries seemed empty. On the right side, the internal iliac is also obliterated, but the clot scarcely reaches the terminal branches. The right external iliac is empty, but its coats are thicker and seem stronger than usual.

The clot of the mesenteric artery is firm, hard, and composed of a whitish mass, well organized and more or less adherent to each other. The walls of the artery are thin ; some of the ramifications of this trunk going to the small intestines, show also clots at different stages, here white, organized and hard ; there black or of red color and of more recent formation.

The embolism of the aorta back to its termination varies also in aspect. Forward to as far as the circumflex it is white, hard and composed of circular zones of old clotting of the blood, while

posterior to this the embolism is of a redder color, indicative of a more recent formation.

The external iliac, near its origin, contains a large clot of thick syrupous fluid, which is continued down into the femoral by an older deposit, and this is prolonged down into all the branches arising from that trunk by fibrinous deposits of a darker color and somewhat softer organization. The smallest arteries are plugged up with red clot.

The muscular structure of the left leg is engorged, and the deep muscles have lost their dark red coloration; they have become pale, softer, and are maculated here and there by what seems to be an interstitial hemorrhage.

The remainder of the body, as far as the post mortem examination was carried, seemed to be perfectly healthy.

The history of the second case is not less interesting or surprising, so far as the rapidity with which the symptoms exhibited themselves.

This horse, as far as known, had never been sick or lame. One day, while in harness and returning from a drive, he suddenly became lame, and was with much difficulty returned to his stable. The next morning he was found perfectly well. A few days later he was returned to his work and behaved in the same manner, and then kept on this way for about three weeks. Dr. Robertson saw him, and though he suspected lesions of some large arterial trunks of the right hind leg, he had no opportunity to make his diagnosis positive.

At his suggestion the horse was brought to the College. As he arrived there, one morning, he presented the following conditions: His skin is profusely covered with cold perspiration; his countenance is very haggard; his nostrils dilated; his eyes staring; his pulse is very fast, weak and irregular. The function of locomotion is very difficult, walking very painful, the lameness, being excessive, is located in the right hind leg. While at rest this is carried in abduction, and the seat of violent motions, spasmodic pains which the animal manifests by suddenly raising his leg from the ground, carrying it violently in abduction and

keeping flexed and elevated from the ground. This leg is much cooler than the other.

The animal is placed in a stall; a few minutes later the pains seem to subside, and an hour afterwards he is free from lameness, rests comfortably, and looks for food.

At about one o'clock I made a rectal examination and found the pulsations entirely absent in the right internal iliac and much weaker in the external artery of the same side; those of the left felt healthy. Diagnosis is then made accordingly.

That same day at two o'clock (he has been in the college about four hours) he is brought before the class of students.

Now that he is cool he seems to be in perfect health. A man jumps on his back and he is put to trotting exercise in the street. After a few minutes the irregularity of action begins to be detected; first it is a stiffness of the right leg, then it becomes more marked; the abduction of the leg is well evident. Soon the animal becomes quite lame; and the moment he is returned to the hospital, the same symptoms as those presented in the morning, are well observed by the students. Rectal examination demonstrates to them also the condition of the arteries, and all those who have examined him can make a similar diagnosis.

We advise the animal to be destroyed. The owner hesitates, doubts probably the correctness of our verdict; told that we are in error, that all the trouble with the animal is a *sprain*, or *cold in the loins*, he allows the horse to be placed under the care of a *Veterinary Surgeon* (?) who applies a severe blister upon that region. After a few days, sufficient for the application to produce all its effects, the horse is returned to his owner, said to be *convalescent*. So as to give some exercise, a boy on one afternoon is put on his back; he takes him round the block two or three times; but suddenly the horse is taken very ill; he is brought back to his stable, and, we understand, dies at eleven o'clock that evening, in the greatest agony, having shown abdominal pains, so the owner reports.

The post mortem was roughly made in the afternoon of the following day at the rendering dock, when the animal was already in a state of putrefaction.

The abdominal organs being removed, the abdominal aorta is found empty as far as the point of its quadrifurcation. At this point the internal face of the artery, which is thin, is found firmly adherent to a white plastic exudation, itself continued to a clot which, as we follow it in the iliac, increases in size.

The internal iliac of the right side is completely filled. The external is partly so. The clot extends in the ramifications of these arteries, and seem, as in the first case, presenting characters of different ages of formation. At places it is hard, white, and well organized, at others of a redder color and softer. This condition is followed down the tibial region, the posterior tibial being also obliterated.

The arteries of the left side are also diseased, but not to the same extent, the cavity of the arteries being only partly filled by the clot of blood.

In looking over the record of the observations collected by Goubaux, published in 1840, and over those published since, we have found the lesions described corresponding more or less with those of this last case, but we believe that those of the first case have never been observed or recorded.

If, now, we look at the length of time elapsing between the moment when the animals showed any signs of disease, (scarcely three weeks in the first case, if we count it from the day he returned from the country to the time of death, and about five weeks in the second;) and if we take into consideration the enormous lesions presented by those animals at the post mortem, indicative of a long standing of diseased process, much matter for thought will be offered to the pathologist and the practitioner. It will certainly remain a difficult matter to explain how (and this especially in the first case) an animal has been able to conserve all the appearances of health, to have remained free from all the ailments known to be the consequence of such lesions as those found at the great mesenteric artery, (repeated attacks of colic) or in the posterior aorta (paraplegia), and yet be affected with the disease of the circulatory system, which certainly must have been in existence for months before it became manifest and such as to need medical interference.

CHLORAL HYDRATE AS AN ANÆSTHETIC FOR OPERATIONS.

BY C. H. PEABODY, D.V.S.

Read before the United States Veterinary Medical Association.

Mr. President and Gentlemen: The few remarks I offer to you on this subject are hastily taken from the notes of my cases book, showing the success I have had in the use of chloral hydrate as an anæsthetic. Never having seen any report made of its having been used as such, I take this opportunity to report a few cases in which it has given me satisfactory results.

CASE NO. 1.

April 16th, 1879.—A cow with retention of placenta, had been straining all day and night of the 15th. I removed it; and on the night of the 16th I was called again, and found inversion of the womb with constant straining: gave 5 iss of chloral hydrate in solution, washed the womb and vagina with the same, of about one part to forty of water; in about half an hour, straining stopped. I replaced the womb without much difficulty, then strapped the animal with a truss. She was quite easy, and laid down and was quiet all night, and gave me no further trouble.

CASE NO. 2.

July 5th, 1879.—A cow, which had got loose from its hitching rope, with a part of the rope attached to the halter, was lost in the woods and missed for four days; when found, the rope was twisted around the fetlock of the off hind leg, so one could see and feel the flexor tendons of the digits; the leg was swollen, and very painful, the animal not allowing it to be touched.

Having no hobbles, and being in the country, and with no one to help me, but an aged couple, I gave the animal chloral

hydrate $\frac{3}{2}$ ii in solution, and tied her to a tree; in about one-half hour I tried to handle her foot, and, much to my surprise, she allowed me to handle it, even to taking my scissors and trimming off the ragged and sloughing portions of the skin and tissues, the animal scarcely moving throughout the whole operation.

July 6th.—Saw the animal, and gave an $\frac{3}{2}$ i of the solution, and re-dressed it, without much trouble, the animal scarcely moving.

CASE No. 3.

August 27th, 1879.—Was called about 8 p. m. to go about 13 miles into the country to see a large roan stallion suffering with colic. I arrived there about 10:30 p. m., and obtained the following history:

This horse is 11 years old; he has had these colic spells at times for four or five years, and has always recovered from them until to-day. He has them worse when worked hard, and in hot weather he will roll on his back, and lays down with his legs up for an hour at a time. On examination, I found the animal suffering from scrotal hernia. I gave $\frac{3}{2}$ iss chloral hydrate in a ball; in about three-quarters of an hour I operated without any hope of success; during the operation the horse hardly moved or struggled. I finished the operation, removed the ropes, and let the animal lie. He did not get up until 8:30 the next morning, and, much to my surprise, recovered.

CASE No. 4.

September 12th, 1879.—A bay horse, whose owner said was 19 or 20 years old, had a punctured wound of the off hind foot of about three weeks standing, and it was impossible to approach him to touch the foot. On September 13th, at 3 p. m., $\frac{3}{2}$ vi chloral hydrate was given him in a ball; when all things were ready, which was in about thirty minutes, I placed the hobbles on him, and threw him. I removed a good portion of the sole and part of wall of the foot; I found a necrosed condition of the inferior face of the os pedis, which I scraped. During the operation the animal hardly struggled, not even when I cut through

the velvety tissue, or in the scraping of the bone ; the animal lay still until about 8 A. M. the following morning, and the stableman said he had a fine rest. He made a good recovery.

CASE No. 5.

December 9th, 1879.—A bay mare on which I was to perform the operation of ovariotomy. At 2:30 P.M., gave chloral hydrate $\frac{3}{4}$ vi in a ball ; at 3 P. M. I operated, and did not have any straining at all, the animal keeping perfectly still, and showing no resistance on the introduction of the hand, during any part of the operation, and evinced no pain, the pulse only increasing to fifty the following day, and the temperature rising to one hundred and two.

December 11th.—The pulse was sixty, temperature, 103 ; apparently in no pain. I gave tincture of opium in $\frac{1}{4}$ oz. doses every four hours. The next day I myself was taken sick, and have not seen or heard from this animal since.

This, gentlemen, is my success in some few cases where I have used chloral hydrate as an anaesthetic in operations. Hoping they may be of some interest, and, as we have nothing else we can use so readily, that they may bring forth remarks or criticisms on the subject from the members present, I will be glad if by presenting them to you I have succeeded in inducing some of you to try it and to give publication of the results obtained.

CONTRACTION OF ORIFICIUM UTERI EXTERNUM.

BY G. ZEUNER, V.S.

About a year ago I was called to attend a cow, which, as the owner called it, "could not calf." On my arrival I found a fine young black cow which was to have her first calf; by introducing my hand in the vulva I could feel the front feet of the foetus still in uterus; by pushing the foetus back I discovered the mouth of

the uterus perfectly closed. On inquiry the owner said she was in that condition about 24 hours. The cow was restless, continually twitching with her tail, and sometimes had strong labors to discharge the young, but all in vain. I applied extr. belladonna with my hand at the closed mouth of the womb, and after about one hour I had the pleasure of delivering the cow of a healthy heifer calf. The placenta soon followed and both cow and calf are doing well.

About one month ago I was called to the same cow. The owner said he tried his best to help the cow, but could do nothing (by the way the man has a repute of being "a smart man amongst cows.") This time he had waited longer before he sent for me (48 hours) and I found the patient in a worse condition than at the former time. The part of the womb mentioned above had this time turned to cartilage and had a low temperature. I used the bellad. again, and as the cow pressed but seldom and not very violent upon the foetus I ordered her to be kept quiet. This was in the morning. I went away to return in the afternoon. At my afternoon visit I was told the cow had been very sick after I had left. I found the part I had applied the belladonna to, to be of a very high temperature and could only get my index finger in the uterus; symptoms in general very bad. I made a decoction of pulv. sem. lini. with bellad. to be used during the night as injection per vulva. I left and promised to return in the morning.

7 o'clock A. M. cow was standing and eating. This time I found by introducing my hand that I was able to get it in the uterus; the cow began to press severely on the foetus, and in about 30 minutes the calf (bull) was born; both doing well. After the cow was dry I advised to have her fattened and slaughtered. I warn everyone, especially the young practitioner, not to be too quick with the knife. I have paid dearly for it, and I think the bellad. has almost done wonders in the above cases; still the above treatment is nothing new.

NOTES ON VARIOLA EQUINA.*

BY FRED. TORRANCE, B.A. VETERINARY STUDENT.

On the 4th of February a horse was admitted to the College Hospital for treatment. The owner said that a few days before he had noticed a slight eruption on the horse's heels, but thinking it a case of scratches he paid little attention to it. However, as the eruption showed no signs of healing, and the leg began to swell, he brought him to the college for treatment.

On examination the following symptoms were noted: Pulse 33; respiration, 9; mucous membranes, normal; bowels, slightly constipated; appetite good; skin, tender and irritable, the animal shrinking from the touch; coat staring.

The left hind leg was swollen and painful, and the animal was very unwilling to move. On closer examination of this leg, a large sore was found in the hollow of the pastern. It was yellow in color in the centre and surrounded by a red edge, and was covered with a peculiar yellowish gummy fluid, having a characteristic *mousy* smell, and feeling between the fingers like the white of an egg. This sore was a little smaller than the palm of the hand. Surrounding it were a number of single vesicles, whose color and appearance were difficult to distinguish owing to the pigment in the skin and the long hair of the part, but the same gummy fluid exuded from each and stuck to the surrounding hair. On running the hand up the leg, numerous little nodules could be felt, like peas or buckshot in the skin. They were most numerous inside the leg, and extended up almost to the belly. About six inches below the hock on the inside, another sore was found, similar in appearance to the former but smaller in size and covered with the same glary fluid, which trickled down the leg, gumming the hairs together.

The right leg was not swollen but had a similar sore in the

* Read before the Montreal Veterinary Medical Association, Feb. 19, 1880.

hollow of the pastern. A few discrete vesicles surrounded it but no nodules were felt on the leg.

On the front legs no eruption could be seen except in the hollow of the pastern, where two or three of the nodules were felt. The rest of the body was free from vesicles, but the skin was tender to the touch and the hair not so smooth as in health.

From these symptoms variola equina was diagnosed and the following treatment prescribed: A purgative ball to relieve the bowels, and an ointment composed of carbolic oil and tr. benzoin equal parts, to be applied every morning to the sores.

This treatment was followed until the 9th, when the scab began to form on the heels. Pulse, 34; respiration, 9. Two ounces of fever mixture in one pint of water were administered, the dressing continued as before.

The fever mixture were repeated the next day and then discontinued, as there was no symptoms of fever or constitutional derangement. During the next four days the dressing was continued and the desiccation of the exudation and formation of scabs gradually extended until the 13th, when the horse was so much better that the owner removed him from the hospital. I have not seen the case since, but learn that he is now well enough to take a little exercise daily and will soon return to work.

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This case has been selected, not for any particular interest it may have, but because it is an ordinary case of variola equina, and may be taken as a fair type of the disease in the present outbreak in Montreal. The eruption is generally confined to the hollow of the pasterns of the hind legs, and vesicles are not usually seen on other parts of the body; but in some cases, however, the eruption is general, and nodules can be felt all over the body—being particularly noticeable on parts thinly covered with hair—the lips, perineum and sheath. The vesicles in these cases may also be seen on the buccal membrane of the mouth; and inside the lower lip, where the skin contains no pigment, is the best place for studying the peculiar characteristics of the eruption.

I have not seen any of the pustules on the Schneiderian membrane, although Fleming says that they are frequently present

and may be mistaken for glanders. Such a mistake may occur in the pustular stage of the eruption, especially if the vesicles are confluent and the sub-maxillary lymphatics swollen from absorption of the exudation, and the crust not yet formed. But if the observer is not frightened at the thought of glanders and makes a close examination, he will see that the eruption of variola is merely superficial, involving only the epithelial layer, while in glanders the sub-mucous layer is affected, and even the cartilage may be involved. But if any doubt exists as to the identity of the disease, the examination may be postponed for a few days, when the symptoms of variola will be more fully developed.

The Continental Veterinarians lay considerable stress upon the similarity of these two diseases, but in this country, where, fortunately, glanders is uncommon, variola is more likely to be mistaken for a skin disease affecting the heels, and called scratches or cracked heels. This is a skin disease brought on by the alternate wetting and drying which horses' legs undergo in this climate, assisted by any predisposing cause that may be present. It may be compared to the chapped hands that we sometimes get from the same cause, viz: having the skin wet in cold weather. It is very easily distinguished from variola, and only an ignorant person would be likely to mistake the two. My excuse for mentioning it at all is that you will be called upon to remedy the mischief done by those persons in treating variola with poultices and stimulating or astringent lotions. Such treatment not only lengthens instead of shortening the course of the disease, but may produce permanent injury to the horse from the thickening and tumefaction of the skin of the part. The eruption of variola, like that of all exanthematous diseases, must run its natural course, and we can do nothing towards shortening it, and by our stupid efforts only bring on fresh complications. An example of this is seen in a case that was brought to the yard a few days ago. The horse had been suffering from an ordinary attack of variola, and the owner, being ignorant of the nature of the disease, procured from a druggist, as ignorant as himself, a bottle of liniment, which he diligently rubbed into the horse's heels. But with what result? The liniment only made the eruption

much worse and produced, besides, some ugly sores which involved, not only the skin, but the tissues beneath, almost into the joint. The leg was swollen and tumefied, and inside it two abscesses were forming on the course of the lymphatics.

Poulticing, another common remedy for scratches, has a very injurious effect on variola, producing tumefaction of the skin, and causing the pustules to develop into unhealthy granulations that may require treatment with caustics or the actual cautery.

There is one other disease with which variola is apt to be confounded. It is a form of eczema affecting the heels of the hind legs. It is a non-contagious skin disease, characterized by an eruption of vesicles, which frequently resemble those of variola. They are generally pointed instead of depressed at the centre, and discharge a thin fluid which forms little flaky scales on the skin. Sometimes these vesicles become pustular and the discharge forms a yellow scab extremely like variola, and it is not surprising that variola should have been frequently mistaken for it. Another cause of error is the name "grease," which is indiscriminately applied both to this skin disease and to variola. Even Williams falls into the common error and describes both diseases under the name eczema impetiginodes or eczema pustulosum. The distinction between them is not very difficult, and if the observer remembers the shot-like feel of the nodules in the first stage of variola, and the peculiar smell of the exudation in the second, together with the constitutional symptoms, he will not be likely to mistake it for eczema.

The name *grease* possesses a peculiar interest from its connection with the discovery of vaccination. In his famous work on the cow-pox, published in 1801, Jenner says: "There is a disease to which the horse, from his state of domestication, is frequently subject. The farriers have termed it the *grease*. It is an inflammation and swelling of the heels, accompanied at its commencement with small cracks or fissures, from which issues a limpid fluid, possessing properties of a very peculiar kind. This fluid seems to be capable of generating a disease in the human body (after it has undergone the modification I shall presently speak of), which bears so strong a resemblance to the

"small-pox that I think it highly probable that it may be the source of that disease."

These last words point to the horse-pox as the probable origin of human variola, but if Jenner thought it the cause of what he calls the "severest scourge of the human race," he also ascribes to it the origin of vaccination; for in the next paragraph he continues: "In this dairy country a great number of cows are kept, "and the office of milking is performed indiscriminately by men "and maid servants. One of the former having been appointed "to apply dressings to the heels of a horse affected with the mal- "ady I have mentioned, and not paying due attention to clean- "liness, inadvertently bears his part in milking the cows, with "some particles of the infectious matter adhering to his fingers. "When this is the case it frequently happens that a disease is "communicated to the cows, and from the cows to the dairy- "maids, which spreads through the farm until most of the cattle "and domestics feel its unpleasant consequences. This disease "has obtained the name of the cow-pox."

These extracts are interesting as showing the views held by Jenner, of the relation of horse-pox and cow-pox to small-pox, views which have been considerably modified by the more searching investigations of recent years.

That cow-pox can originate from the inoculation of variolous matter from the horse is well known, but that it is always caused in this way is extremely doubtful, and it is more probable that this is an irregular mode of origin. The question of the origin of cow-pox, however, is not of as much practical importance as the relation of both horse-pox and cow-pox to small-pox, from its connection with vaccination. The deterioration of lymph stocks, and the difficulty of finding cases of genuine cow-pox from which to renew them, have led to the inoculation of cows with small-pox virus in the hope of obtaining from them fresh supplies of vaccine lymph. Success has been attained in many instances, particularly Ceely and Babcock in England, and Drs. Gassner and Thiele on the Continent; but other experimenters, after many attempts, have failed completely. Even those who have been successful speak of the difficulty of producing the disease in the

cow, and some have tried as many as forty times without success. In cases where lymph was obtained, it was used in the same way as ordinary vaccine lymph, and Ceely states that more than 2,000 subjects had been vaccinated with his variola vaccine lymph. But recent investigators have not been so fortunate, and in the experiments of the Commission appointed by the Society of the Medical Sciences at Lyons, although cows were successfully inoculated with small-pox, yet the lymph obtained from them produced in every case small-pox, sometimes of a violent type, and in one instance at least was fatal. Troussseau, in his lectures on clinical medicine, sums up the results of this Commission in the following words: "The learned reporter (*Chauveau*) has first shown that small-pox can be perfectly well communicated to the bovine species by inoculation, to which species it stands in the same relation as vaccinia to man; that is to say, that when an ox is inoculated with small-pox, it is thereby made proof against cow-pox, just as vaccinated man is proof against small-pox. But a much more practical point is that small-pox in its passage through the system of a cow is not transformed into vaccinia; it remains small-pox, and returns to its original state of small-pox when re-introduced into the human species."

With such evidence as this adduced by Chauveau, the question might have been considered settled, but a recent conference on animal vaccination held in London, has re-opened the question, and Mr. Fleming, in an able article to the *Lancet* of January 31, on "Human and Animal Variolæ," supports the view expressed by Chauveau that the domestic animals have each their peculiar variolæ, that within certain limits these may be propagated from one species to another by inoculation, but that this is an abnormal and artificial mode of causing the disease.

The limits of this paper do not allow me to enlarge upon this interesting branch of the subject, but if any of you desire to investigate it further, I would refer you to Mr. Fleming's article in the *Lancet* of January 31 and February 14, and also to a very exhaustive paper by Dr. Cory, on the "Relation of Cow-pox and Horse-pox to Small-pox," in *St. Thomas' Hospital Reports*, Vol. IX., 1879.

With regard to the contagious nature of variola equina there can be no two opinions. The rapid spread of the disease in the city, the frequent cases where it can be traced directly to inoculation, and especially the number of grooms and others who have taken the disease, prove this conclusively. Several cases of inoculation have occurred among the grooms in the city, and one of our own number is at present suffering from the malady; but of these I will mention only one, which is interesting from the fact of its occurrence in a man who had previously had small-pox. This man, while grooming or dressing his horse, became inoculated through a slight abrasion of the skin on the back of his left hand. In a few days the usual symptoms of vaccination were seen in his hand, and a vesicle formed at the point of inoculation. By the eighth day this vesicle had become mature and showed the characteristic depressed centre in a red areola, exactly resembling the pustule of vaccination. The arm at the same time was swollen and painful, the swelling extending into the axilla. The scab subsequently formed, and the swelling gradually disappeared. It is curious that this man, whose face bore the unmistakable scars of small-pox, should have been susceptible to equine variola, and, like cases of persons taking vaccinia after small-pox, or even of taking small-pox the second time, must be referred to the idiosyncrasy of the individual until we find some other cause.

How the present outbreak in Montreal originated is a question of some interest, and unless we suppose it due to the introduction of an infected animal, we must admit its spontaneous origin. If arising from infection, where did the infected animal come from? We know that since its previous visit in 1877 the disease has been occasionally met with in different parts of Canada, but never in the form of an enzootic, and in the neighborhood of Montreal it had disappeared for upwards of a year. This theory is therefore improbable unless we suppose the infected animal to have come from a distance. Atmospheric causes seem to have something to do with it. The present winter has been characterized by extreme mildness with frequent alternations of cold and wet, and this, taken in connection with the fact of the previous

out-break in 1877 occurring at the same season of the year, (February), must be regarded as a suggestive circumstance, if not as a predisposing cause.

EDITORIAL.

OUR FOURTH VOLUME.

Our friends and readers will receive this number, no doubt, with the same satisfaction that we have in issuing it. The first number of the fourth volume, it presents itself with the same prospect as its predecessors, and with firm will to surpass them in interest and usefulness.

Since its birth, the **AMERICAN VETERINARY REVIEW** has met with a success unequaled by any periodicals of its kind, specially if we consider the conditions under which it was issued.

Acknowledged by all at home and abroad as the representative of veterinary interests in America, it will be continued as such, if work and proper efforts are sufficient to reach this object.

Though no change will take place in the editorial staff, arrangements have been made, and we hope will be carried out, by which much matter of interest will be obtained for our paper, and thus we will, still better than in the past, be able to provide our readers with the most recent news and investigations, which may be presented to the profession either at home or on the continent.

Our correspondents will here accept our sincere thanks for their past kindness, and our readers for their friendly support during the last three years.

The veterinary profession in America has for the last few years made great strides on the road to improvement, and we can be proud to think that, all of us, through our **VETERINARY REVIEW**, have more or less contributed to these advantageous steps in the right direction, which cannot do otherwise than to bring veterinary medicine to the standing which it ought to claim.

THE SEMI-ANNUAL MEETING of the United States Veterinary Medical Association, which was held lately in Boston, proved one of the most satisfactory that this large body of veterinarians ever had.

Besides the admission of a number of new members and the proposal of many candidates for admission, important business relating to the Association, to the profession, and to the journal published, all of which will be found in our paper in full, an excellent short paper was read by Dr. Charles Peabody of Providence, bringing before the meeting the results of the experience of this gentleman in the use of chloral hydrate as an anæsthetic.

This, we believe new application of this remedy, in active practice, will no doubt be tried by other veterinarians, and we hope they will not hesitate to give us information as to the results obtained. If the advantages that Dr. Peabody reports can be realized also by others, the probabilities are that many means of restraint will be put aside to be replaced by this new but simple mode of controlling the struggles of animals during surgical operations.

AMONGST the contents of this number will be found a paper on diseases of the posterior abdominal aorta and its branches, which was read before the New York Pathological Society.

Illustrating the symptomatology of the disease as it presented itself in the two horses thus affected, it also gives the lesions which were found at the post mortem, and illustrates well the powerful resistance of animals to diseased processes.

HORSE VARIOLA—An outbreak of this disease has been reported as extensively prevailing in Canada, and principally in Montreal. A paper on this subject, as observed in the Montreal Veterinary College by Mr. F. Torrence, veterinary student, as well as one from Prof. McEachran, will be found in full in our pages.

THE REPORT of the Minister of Agriculture for the Dominion of Canada has been sent to us by Prof. McEachran. It contains from the pen of the Professor an excellent article on the cattle trade, embracing the regulations of quarantine for the different contagious diseases, and also a series of investigations in relation to some of those diseases, viz: Tuberculosis, anthrax, etc. The report is completed by an article on contagious pleuro-pneumonia, as prevailing in the United States.

TRANSLATIONS FROM FOREIGN PAPERS.

GOURME; OR, HORSE VARIOLA.

NATURAL AND IRREGULAR FORMS OF THIS DISEASE—INOCULATION AS
A PROPHYLACTIC MEANS OF ITS COMPLICATIONS.

BY M. L. TRASBOT.*

(Continued from page 474.)

VII.

Amongst all possible complications of gourme, undoubtedly the most common are the inflammations localized in the respiratory apparatus. They are so frequent, that they have often been seen alone amongst the pathological phenomena connected with the development of the disease, and that they have been considered as constituting it entirely in the majority of cases. There is no classical work or periodical publication, where it has been considered differently. Always leaving aside or failing to observe the fundamental fact, the accessory has been noticed, and thus, under the name of gourme, almost all anginae, bronchitis, and pneumonia of young animals have been described.

* Translated by A. Liautard, M.D., V.S.

Hence have been made: a benign, mild or serious gourme according to the severity of the general symptoms, when it seems to consist only in a simple laryngo-pharyngitis, with or without intermaxillary abscesses; and by opposition, a malignant gourme, when the localization consisted in bronchitis, and specially pneumonia; this last most commonly terminating by purulent and gangrenous formations in the pulmonary tissue.

It is resting on this error, still much accredited, that notorious authors have affirmed that an animal could have the disease several times.

Indeed, it is not rare to see inflammation taking hold of the same tissue more than once. Clinical observation has shown long ago that any inflammatory disease may leave behind itself, in many cases, and for a long time, a kind of irritability in the organ affected, which renders it more susceptible to disease. Angina, bronchitis, pneumonia, etc., then give, in fact, to a sick animal a true predisposition to contract those same diseases. In such a way that a disturbing cause given, as, for instance, exposure to cold, which ought to have produced only a slight effect on a robust animal, and previously free from a similar affection, might become sufficient, on the contrary, to develop it in another, which ordinarily would have had one or several attacks.

Can it be, then, surprising that some horses would present new attacks, more or less numerous, of catarrhal affections of the air passages. But it does not prove that they had gourme at so many times. Even if the first manifestation had been certainly a complication of gourme, it does not follow that the others must be of the same specific nature.

Generally, that disease affects animals but once. Second attacks are exceptions, very rare, and in all cases as mild as those of human variola.

Mr. Charles Martin, in his series of observations gathered during 15 years, says, "I have never been able to observe a horse which had gourme twice; I am convinced of the *non-recidivity* of that disease."

This is an opinion expressed by a practitioner of large practice and extensive observation, and thus has considerable

value. We can then accept the principle that a first eruption of gourme gives an immunity for life to all animals thus once affected; this is of capital importance to the point of view of the practical utility of its inoculation.

But if gourme does not return, it cannot be the same, as I have said, for the catahrral affection which may complicate it.

As well as those, whose origin is not specific, they predispose the mucous membranes where they were developed, to a return of the inflammation. And this is how their reappearance, so often observed, during four or five consecutive years on the same animal, has caused the belief that they were successive manifestations of true gourme, whose specific character had not been sufficiently observed.

However, the so common repetition of these affections constitute, besides their proper serious character, a sufficient reason for trying to prevent their primitive development at the time of the variolic eruption.

It is useless to describe them—they are too well known. They ought all to be considered as complications of gourme.

I will only say a few words of their gravity, and afterwards look into their causes to conclude from these to the means of avoiding their action.

Angina, with sub-glossal abscesses, is both the most frequent and the mildest of all gourmy affections localized in the respiratory apparatus. In the majority of cases it terminates regularly, without compromising the life of the animal nor his special qualities.

I believe that it is an error to say that it may be followed by permanent roaring. Though closely watching for it, I have never met with it. Altogether, this condition of gourme represents pretty well what was called the benign form.

Still, rare exceptions may be met with to the general rule. When the local phenomena are very intense, animals may be threatened with asphyxia, and die in a very short time. Again, as a consequence of the facility with which pus forms itself in every part of the body, deep abscesses of the throat, of the walls of the pharynx, may be developed and be followed by the same result.

Bronchitis, less common, is, on the contrary, more serious ; first, on account of its longer duration, of the debility it produces, and also of some consequences that may follow.

When it lasts long, it sometimes gives rise to pulmonary emphysema. By the repeated efforts of coughing, a certain number of pulmonary lobules are torn, and the air escapes into the interlobular connective tissue.

It is also often followed by chronic roaring. I have observed several cases of it. This frequent complication induced me to look into its cause, and I believe I have found it.

In 1853, and later, in 1864, M. Goubaux made it known as one of the constant lesions of chronic roaring, the astrophy of the laryngeal muscles on the *left side*. After numerous researches he failed to meet an exception to that rule. He always found those muscles and the nerves which distribute in them in an advanced stage of atrophy. And then in 1868 he explained this phenomenon as follows: "The left inferior laryngeal nerve passes on the anterior face of the trachea, while the right is situated more deeply; therefore, in animals which in harness carry a too narrow collar, there must be a constant pressure on the left nerve, and as a consequence its paralysis can be explained."

Some days after this, Gunther, Jr., in a letter to Mr. Bouley, stated that since 1834 his father had published in a paper on causes of roaring, 1st, that the section of the inferior laryngeal produced roaring immediately ; 2d, that 95 times in 100 the muscular atrophy existed on the left side of the larynx ; he objected to the theory of Goubaux in saying that a great number of saddle-horses became roarers though they never had a collar ; and expressed the supposition that the atrophy of the left recurrent might be due to a rheumatic influence.

The theory of Goubaux seemed to be satisfactory, and became the object of a revindication for priority. Mr. Colin claimed it also. However, it was accepted. Two anatomists and physiologists gave it their approbation. Mr. Colin added that the atrophy of the nerve might be due to its relations with the bronchial ganglions. Dupuy had mentioned this fact also.

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Still, from the day when Goubaux had called the attention to that lesion proper to chronic roaring, I examined the larynx of all the roarers which died in my service. I never failed to meet the same lesions.

But later, having heard that saddle-horses were commonly affected, though they never had a collar on their neck, and also that it was commonly seen after an attack of bronchitis complication of gourme, I came to the conclusion that there must exist, in many cases at least, another mechanism for its development.

I first remarked that in all the anatomical researches I made the inferior laryngeal nerve was not only atrophied from the base of the neck at a point where it would have been compressed by the collar, but in its whole length from its origin. Again I observed, as indicated by Colin and as described by Chauveau and Arloing, that the left laryngeal leaves the pneumogastric farther back than the right, on a level with the roots of the lungs, and then twists round behind the cross of the aorta. There it is interposed between this vessel and the large ganglionar mass of the bronchia, which may compress it against the artery.

And again, I observed in many post-mortems of roarers that this nerve, surrounded by the ganglions indurated or transformed by any kind of neoplasm, was precisely atrophied from this point, and was reduced from there to the condition of a thin, greyish thread up to its end. I have preserved one piece amongst many, illustrating this condition.

I was then brought to the conclusion that the pressure of the bronchial ganglions had a great influence on the production of roaring ; was, perhaps, the exclusive cause of the atrophy and of the left laryngeal muscles.

It is thus that I explained to myself the frequent persistency of roaring after bronchitis of gourme, as it is known that all the inflammatory complications of gourme are accompanied more so than the simple inflammation, by large swellings of the lymphatic ganglions. Externally they generally suppurate, but when deep they seldom undergo this change, in such a way that after four

or five weeks the bronchitis of gourme is cured, the nerve may be sufficiently atrophied under the influence of the compression made by the enlarged ganglions to have lost its functions; the animal is a roarer.

Is there another mechanism? I do not know. But I am brought to accept this by the minute anatomo-pathological observations that I have made.

From these considerations it results that bronchitis is a complication of gourme, not only a serious affection *per se*, but also dangerous by the almost fatal result above mentioned.

Many observations could I mention to demonstrate it. One significant will be sufficient. A handsome percheron stallion, perfectly healthy, was presented to the Universal Exhibition of 1878. While there he contracted gourme, complicated with bronchitis, which lasted six or seven weeks, after which he was a confirmed roarer. Three months later he was in the same condition.

For me there remains no doubt that many cases of roaring take place in that manner. Therefore, I advise the veterinarians who practice in the breeding districts or who may have opportunity of gathering good observations on that subject, not to neglect them, and thus bring important facts likely to completely elucidate the question.

As to pneumonia, it is the most serious of all the gourmy complications. Whether lobar or lobular, almost always it terminates by suppuration and gangrene, followed by death. The purulent collections have often, wrongly, been considered as old lesions. On the contrary, they are developed in very short time. In animals which may have died after four or five days of sickness they may already be very large and numerous; an important fact which must not be overlooked when one is called to judge as to the date of a pulmonary disease.

It is not the presence of pus in variable quantity which characterizes the old existence of the affection, but only the fibroid induration. I have no desire to describe at present those anatomical lesions. I may only notice the frequency of one amongst them in the very recent pneumonia of gourme.

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This, in the rare circumstance, when it gets well, must have for its result, as much as bronchitis, to produce roaring. Since the time when my attention was called to this subject, I have seen it often. All these complications of gourme, angina, bronchitis, and pneumonia are occasioned by the external influences which were in old time considered as sufficient causes of the true disease. These are the exposures to cold, the emigration, &c., which I have already discussed, and upon which I will say no more. When they act upon an animal contaminated already and under the influence of the disease, in the incubative or eruptive stage, they give rise to the appearance of these complications because they interfere, and prevent more or less, the natural development of the disease.

(To be Continued.)

SOCIETY MEETINGS.

MEETING OF THE UNITED STATES VETERINARY MEDICAL ASSOCIATION.

The seventeenth semi-annual meeting of the United States Veterinary Medical Association was held at Young's Hotel, Boston, Mass., on Tuesday, March 16th, 1880. At the meeting of the Comitia Minora, held at 11 a. m., there were a number of names proposed for membership. The subject of altering or amending Article 4, Section 1, of the By-Laws was discussed, and referred to the regular meeting.

At the regular session of the Association quite a large number of gentlemen answered to their names. The Secretary, Dr. A. A. Holcombe, being absent, the Society chose C. B. Michener to act in that capacity during his absence. The following gentlemen were elected as members of the Association: F. S. Billings, M.V., Wm. J. O. Sullivan, M.R.C.V.S., Chas. Winslow, V.S., Wm. Zuill, D.V.S., Walter H. Hornblower,

D.V.S., Edgar P. Wing, D.V.S., Hubert F. Foote, D.V.S., Thos. C. Cowhey, D.V.S., and Geo. H. Bailey, D.V.S. On account of some little irregularity in the application for membership, the names of Robt. Simmen and E. P. Smithers were laid over until the next meeting. The names of Thos. Blackwood, W. H. Lillyman and Chas. R. Wood were proposed by members present. Their credentials will be placed before the Board of Censors at the next regular meeting.

A Library Committee, Committee on Intelligence and Education, on Diseases, Finance, and Prizes were then appointed by the chair. The "Resolution Committee," that was appointed at the last annual meeting to petition Congress in relation to contagious diseases, reported progress.

Dr. Liautard then stated the condition of the American Veterinary Review, which is very flattering. Its circulation is increasing, it is not only free from debt, but has a small amount of funds to its credit. The propriety of paying small sums (not to exceed twenty-five dollars) for original contributions to its columns was left to the discretion of the editor and his associates.

Dr. Peabody then read a paper on "Chloral Hydrate as an Anaesthetic in Operations." The essay was well discussed and ordered to be printed in the Review. The Association unanimously extended to the essayist a vote of thanks. Reports of cases, with a general discussion on embolisms, soundness and spavin followed.

Ample justice being done to the sumptuous dinner, for which our Boston friends are famous, the Association adjourned one of its most pleasant and profitable meetings.

C. B. MICHENER, *Sec. pro tem.*

MONTREAL VETERINARY MEDICAL ASSOCIATION.

The usual fortnightly meeting of the above Association was held on Thursday evening last, March 4th, Mr. C. J. Alloway, V.S., in the chair.

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The members expressed their pleasure in seeing Mr. Alloway once more among them, after recovering from his late severe illness.

The following resolution was also passed: "Moved by Mr. Wm. McEachran and seconded by Mr. J. B. Green, that this Association deeply regret the untimely death of the late John S. Thomas, an active and earnest member of the Association, and much respected by his fellow-students. The circumstances of his death are peculiarly sad, and we sincerely sympathize with his sorrowing family in their sad bereavement."

Mr. William Jakeman, Boston, Mass., read an interesting report of a case of cerebral meningitis in a horse treated by him under the direction of Professor McEachran. The symptoms described were those of dullness, stupidity, nervous twitchings, gradually increasing to complete stupor, alternated by violent fits of excitement, pressing the head into a corner, delirious movements, during which galloping was simulated.

The treatment consisted in laxatives—large doses of bromide of potassium, and in the later stages nux vomica. At the outset cold applications to the head, subsequently changed to counter irritation.

The recovery is not complete. Though nearly well, slight nervous twitchings continue.

Mr. Peter Cummings, Quebec, read an interesting paper on auscultation and percussion as diagnostic aids in veterinary practice. Mr. Cummings described the various sounds discovered on auscultating and percussing or tapping the chest. He said it was impossible for any one to hope to be able to examine diseased lungs or heart, unless they were perfectly familiar with the sounds emitted by healthy organs. None of the lungs or heart sounds could be recognized from description any more than any particular musical instrument or any individual tone of that instrument; they must be listened to both often and carefully. He would, therefore, urge upon all students never to miss an opportunity of examining the respiratory and circulatory organs whilst at college, when they could do so under the supervision of their clinical teachers. However well versed they might be in physiology and

pathology, unless they could readily recognize a healthy from a diseased note, they would have wasted many valuable years. It was absolutely essential to every practitioner's success that auscultation and percussion should be to him really and truly *diagnostic aids*.

In the discussion that followed, Dr. James Bell, Surgeon of the Montreal General Hospital, fully corroborated Mr. Cumming's views as to the necessity of becoming familiar with all chest sounds. He, in a few well-chosen remarks, gave the students some valuable ideas on the subject.

After a vote of thanks to the essayists, the meeting adjourned till March 18th, when papers by Mr. E. J. Carter and Mr. Donald Campbell will be read.

HORSE-POX—VARIOLA EQUINA.*

BY D. MC EACHRAN, F.R.V.C.S.

SIR.—My attention has been called to numerous paragraphs which have appeared in Canadian and American newspapers referring to the epizootic disease at present prevailing in the city and vicinity, containing statements which are incorrect and calculated to cause alarm among horse-dealers, which is altogether unnecessary. The disease is unquestionably *variola equina*, or horse-pox ; it is similar in its nature to vaccinia or cow-pox ; it has no connection with small-pox of man, other than being a variolous disease, that is to say, when man is inoculated by the virus of horse-pox, small-pox is never produced, its effects on man are exactly the same as vaccination, and has the same protective power against small-pox.

Horse pox and cow-pox differ from small-pox by the exanthemata being in all cases purely local ; instances of its involving the entire body are extremely rare in the horse ; the eruptions are confined to the heels and pasterns, occasionally extend-

*From the Gazette, of Montreal.

ing up the legs; seen also on the muzzle, mouth and nose, groin and perineum, and in a few instances diffused over the shoulders and loins. In cattle it is almost invariably confined to the udder.

Jenner, the great discoverer of vaccination, one of the most important advances in medicine, was of the opinion that cow-pox was often due to the accidental transmission of the virus of the horse to the udder of the cow from the hands of a milker who had been taking care of horses suffering from variola.

Crushman says: "The horse-pox very probably can be inoculated upon the human subject with the same effect as vaccinia, and the practice is objected to merely because horses have other kinds of sores upon the foot print which occasion disagreeable mistakes sometimes."

On this subject I might remark that both during the epizootic of this disease in 1877 and the present winter, I have invariably urged the grooms not to fear inoculation, as their being susceptible to it indicated their susceptibility to small-pox, and that if they became inoculated it would in all probability protect them as surely as vaccination would. From observation in half a dozen cases of inoculation of grooms, four on the hand and two on the face, I am convinced that the results are identical with vaccination. Two or three days from the time of inoculation the part becomes red and slightly swollen, a sympathetic swelling also extending up the arm to the oxilla when in the hand, accompanying which there is a slight fever. By the fourth day a single vesicle forms containing clear lymph, which enlarges till about the seventh day it attains a diameter of an eighth of an inch, and gradually becomes opaque. About the tenth day it is yellow, and the surrounding tissues are swollen and red. It now gradually begins to desiccate, beginning in the centre; the scab thickens and dries and becomes of a dark brown color, and about the seventh day it is thrown off, leaving a scar similar in every respect to that seen from vaccination.

With regard to the causes of this disease, it may be difficult to account for it. During a residence extending over seventeen years in Canada, I have only seen it twice, viz: in 1877 and dur-

ing the present winter. There can be no doubt that it is dependent on some peculiar atmospheric condition, sudden changes of weather, such as have recently prevailed here, or other causes purely local. That it is contagious cannot be doubted, and that it is infectious I am also inclined to believe, but neither contagion nor infection form marked features in the disease. For instance, in the College Hospital, which for several weeks back, has been full of variolous patients, my own horses and half a dozen others have not presented any symptoms of the disease. True, the patients are in loose boxes, and dressed by different persons from the healthy horses. Again, in an establishment of nearly 200 horses, only three or four cases have occurred, while in some stables of two or three horses, all have become affected. That the disease can be carried to a distance and become epizootic I do not believe. Thus, for instance, I do not believe that a horse suffering from variola taken to, say Boston or New York, would introduce the disease to these cities as an epizootic, unless the climatic and atmospheric conditions necessary for its existence and spreading existed there, which is very improbable; consequently no apprehension need be felt on account of it. At most it is merely a temporary inconvenience, necessitating in the majority of cases cessation from work for about three weeks, and, if allowed to run its regular course, unattended by any injurious results. Injudicious doctoring, or keeping the animal at work, may produce sores of the heels affecting the deep tissues, which are sometimes difficult to heal.

I may further add that whatever the cause has been, it seems to have exhausted itself, as the disease is rapidly disappearing. Very few new cases are occurring, and most of those laboring under it are returning to work.

D. MC EACHRAN, F.R.C.V.S.

Inspector of stock for the Dominion Government.

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THE SUPPRESSION OF CONTAGIOUS DISEASES AMONG OUR DOMESTIC ANIMALS.

BY F. S. BILLINGS.

It is certainly encouraging to the members of the veterinary profession to see indications of a movement in this direction in Congress. It should mean professional advancement in the right direction. Veterinary medicine finds its strength and gains public appreciation, not like human medicine, in the gratitude of the patient or his family, but in its ability to prevent, in a measure, individual or great national losses, and, what is still more important, its ability to prevent many serious diseases or unpleasant disturbances to the human organism. In other words, from the appreciative point of view, veterinary medicine is strong where human medicine is weak, and *vice versa*. It is of the utmost importance and interest to every public-spirited veterinarian that no serious mistakes be made in the formation of the so-called "Commissions" for the suppression of the diseases in question. What the profession desires, is advancement, as a whole, in public appreciation. In the appointment of Commissions, or, rather, in the manner they have thus far been conducted, this end has been most signally lost sight of. The veterinarians who have been appointed to these positions have so conducted themselves as to magnify themselves and the Commission before the public, but the profession as a whole has gained nothing thereby. In Massachusetts we have had a "Cattle Commission" for some seventy years, but the *whole* work which has been done has been done by them, and no endeavor has ever been made to elevate the profession into notice by appointing, or seeking to appoint, local veterinary inspectors over the State, so far as the forces at their command would allow. In New York and New Jersey it is the same thing. The Commission would be all in all, and the veterinarians occupying the prominent positions have done nothing, that is, made no public endeavor, to be said that

such an endeavor could but result in failure—that the authorities were not yet ready for it. To which we answer, that until the attempt has been made in earnest, such an answer is but an evasion of the point at issue. The Massachusetts Commission are very proud, and justly, of the work they did in suppressing contagious pleuro-pneumonia of cattle between 1860 and 1870. But they really overestimate the work they did. They forget that Massachusetts herself was the centre of invasion, and that they had the disease only in Massachusetts to cope with, and were not endangered at all by threatened invasions from adjoining States. Hence, once stamped out, it remained so, which would scarcely have been the case were adjoining States equally invaded. Glanders is a disease very similar in its nature to the cattle distemper, but our Commission is almost powerless to prevent its extension. The work it does in this regard is far exceeded by the S. P. C. A. Association. The reason of this is, that the work is supposed to be done by *one Commissioner*, and the profession at large is utterly neglected, nor does it form any part of the State preventive force. This is the danger the profession would avoid in the appointment of a National Commission. What the profession demands is, that the veterinary incumbent of such a position shall be a man having not only the necessary technical qualifications, but also one who will entirely forget himself, save that he will put his entire *self* into the work of making evident to the people the value of the profession, by endeavoring to organize as efficient a veterinary police as circumstances will permit. Two different bills have been presented to Congress, proposing a Commission for the purposes in question; one by a Mr. Kiefer and the other by a Mr. Lefevre. It is the purpose of this paper to call the attention of the profession, as well as the readers of the *Turf*, to the different plans of organizing said Commission in these two bills. Mr. Kiefer proposes that the Commission be composed of a practical stock-raiser, a civilian (who should be an able lawyer) and a veterinarian. That of Mr. Lefevre proposes that the Commission be composed of the Commissioner of Agriculture and the Secretaries of Treasury and State; *this board to employ a veterinarian*. It should be evident to every veterinarian that this

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last proposition deserves not only condemnation, but bitter opposition from every true member of our profession. Who of us is willing to play advisory fiddle to these three moguls? I, for one, certainly am not. (Better wait until I am asked? says some one; but I don't intend to.) In Mr. Kiefer's plan the veterinarian stands on an equal footing with the other members of the Commission. He is a man—a servant of the people—not a tool, depending for his position upon political favoritism alone.

What *man* of us is willing to take any public position upon such terms? Certainly no one with a particle of self-respect or professional pride! What reward does it offer for work of the most arduous and responsible kind? Here we are at the close of an administration. What kind of a man does the honorable member from Ohio think can be obtained, willing to give up a lucrative practice, to take a public position for the brief period of one year, or, what is still more damnable, to take it subject to the will and sweet pleasure of three government officials and political wire-pullers? Such a proposition as this of Mr. Lefevre is nothing else than demoralizing and insulting to our profession. Better no Commission at all than one by which the veterinarian is proposed to occupy so subordinate a position.

Our profession should represent a scientific body of men. Science is not bought and sold. She does not stoop, nor do her advancing sons, at the feet of men almost ignorant of the alpha and omega of her mission. Unless our representative can occupy an equally honorable position with any other member of the Commission, the Government should go begging for such an incumbent.

When will the day come that our Government will appreciate science and do something for her advancement? If Congress should pass either of these bills, it is to be hoped that this position will be made equal to any other on the Board, and second that it will be thrown open to the profession for public competition, theoretical and practical; by this we mean autopsies of diseased animals, with oral demonstrations of the results. Unless this practical side is strictly observed, some book-worm might get the position, whose only fitness would be that of a *parrot*—to

repeat what others had said ; and thirdly, the successful candidate should receive the appointment for at least ten years ; otherwise, I do not know a man who could afford to take the position for \$4,000 per year, as proposed by Mr. Kiefer, and give up a successful practice.

It is a disgraceful characteristic of our National as well as State Governments that, so far as suitably rewarding the work of scientific men, they are *dead beats* in comparison to the world at large. They seem to think that the "honor" pays. They forget that "honor" and starvation wages do not find bread and butter for wife and children, or supply the means for a comfortable old age.

Civil service reform, moderate pay, and pensioning on retirement is the only way by which a Government can ever hope to procure the services of really able scientific men.

To my colleagues of the veterinary profession, I have this word to say : Do not undervalue the truth of my words, that it is of the utmost importance to us as a profession, and to our future as well, that this position be filled by a man who will work to bring our profession into prominence ; who will, while making a name for himself, do it by working entirely in the interests of the profession and the people. The plan proposed by Mr. Lefevre is crude in the extreme. It is nothing more or less than our old "Commission" over again—a one-man power. State veterinarians are to be hydra-headed monsters, or mediums, all over the State at one time. It knows nothing of local veterinary officers. Owners are to report cases to the Governor of the respective State, who is to send the State Veterinarian to investigate the case. Poor fellow ! It will be hard if four or five notices, in as many distant parts of the State, should be sent in at once. Like a bee in a bucket, he would scarcely know which way to go to get out of the scrape.

The plan of Mr. Kiefer, or a somewhat similar one, is far more likely to lead to favorable results. Let us learn to hasten slowly—to look before we leap. One wonders who advises our wise legislators on the question. Why not invite three or more representative members of our profession to Washington, pay

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them properly, and have them give their opinion? None of us differ so much that we could confound any committee by our varying testimony. And, finally, pleuro-pneumonia *will not be stamped out* of this country in the way proposed, but will slowly and surely extend over the country until it costs us millions every year, unless the profession at large be called in to take part in the work, and even then it is very doubtful if we are successful. Again, all these men propose is to combat pleuro-pneumonia. How about other contagious animal diseases? Have we none? My colleagues, you are by far too modest. You leave this work of educating the public, of correcting abuses, of watching the signs, too much to a very few men. Some of you can certainly write. Then up, men, and do your duty! Nothing leads sooner to the discovery of the truth than honest, open discussion.—*(From Turf, Field and Farm).*

OBITUARY.

The veterinary profession in France has recently lost one of its oldest and best members—M. T. Lecoq died the 14th of last month, when nearly 75 years of age. Late professor and director of the veterinary school of Lyons, and then general inspector of the French veterinary schools, the highest position of the professional hierarchy in France, he was the author of many excellent works, amongst which one, the “*Treatise on the External Form of the Horse, and of the principal Domestic Animals*,” was entering on its seventh edition.

ARMY APPOINTMENTS.

Mr. James Humphries, V.S., graduate of Ontario Veterinary College (1878), has been appointed Veterinary Surgeon to Second U. S. Cavalry, and is now stationed at Fort Custer, M. T.

DONATIONS TO AMERICAN VETERINARY COLLEGE.

SPECIMENS PRESENTED TO MUSEUM.

174, 175. Ulcerated and Necrosed Navicular
Bones..... Prof. A. Liautard.

176, 177. Fracture at the Coxo-Femoral
Joint..... J. C. Myers, Jr., D.V.S.

178. Large Intestinal Calculus..... J. C. Myers, Jr., D.V.S.

179. Dochminus Trigocephalus—right
heart of black-and-tan dog. Theo. Outerbridge, D.V.S.

180, 181. Arthritis of Elbow Joint..... J. C. Myers, Jr., D.V.S.

182. Longitudinal Comminutive Fracture of
the Radius..... S. S. Field, D.V.S.

183. Jabot in Cow..... C. B. Michener, D.V.S.

184. Comminutive Fracture of the Metatar-
sal Bone..... W. H. Wray, D.V.S.

185. Wall Eye of an Ox..... H. B. Herr, D.V.S.

186. Bones of a Calf, dead in utero..... H. B. Herr, D.V.S.

BOOKS PRESENTED TO LIBRARY.

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Organic."

1 vol. W. Burke—" Compendium of Anatomy, Physiology and
Pathology (1806)."

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1874, 1875, 1876, 1877."
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1 vol. Investigations of Diseases of Swine, and Infectious and Contagious Diseases of Domesticated Animals.
1 vol. Annual Report State Board of Health (Rhode Island).
1 vol. Memory of Doctor Val. Mott.
1 vol. Transactions New York Pathological Society.
1 vol. Report of the Minister of Agriculture for the Dominion of Canada.
1 vol. Report Board of Agriculture (Connecticut).
1 vol. Chauveau's Anatomie Comparée.
1 vol. Blaine's Veterinary Art.

EXCHANGES, ETC. RECEIVED.

HOME EXCHANGES.—American Agriculturist, Prairie Farmer, Medical Record, Turf, Field and Farm, Medical and Surgical Reporter, Scientific American, The Physician.

FOREIGN EXCHANGES.—Revue fur Thierheilkunde und Thierzucht, Gazette Medicale, Recueil de Medecine Veterinaire, Veterinary Journal, Veterinarian, Clinica Veterinaria, Revue Dosimetrique, Revue d'Hygiène.

JOURNALS AND PAPERS.—Montreal Daily Star, Gazette (Montreal), Philadelphia Inquirer, Tribune and Farmer, of Philadelphia, Journal of Agriculture (Montreal).

BOOKS AND PAMPHLETS.—Report on Pleuro-Pneumonia among Cattle in the State of New Jersey, Report of the Minister of Agriculture for the Dominion of Canada, 1879.

CORRESPONDENCE.—G. Zeuner, V.S., Fred Torrance, B.A.